What is claimed is:

- 1. A seismic signaling apparatus, comprising:
- a support frame;

an air-gun array operably mounted to the support frame such that a tapered, heavy centered, point source seismic signal is generated upon firing the air-gun array; and

at least one shock absorbing member attached to a pair of adjacent air-guns in the air-gun array that is operable to absorb a force generated upon firing the air-gun array.

- 2. The seismic signaling apparatus as recited in claim 1 wherein the air-gun array further comprises air-guns in two parallel vertical planes and wherein the at least one shock absorbing member further comprises shock absorbing members attached to respective pairs of adjacent air-guns in the two parallel vertical planes.
- 3. The seismic signaling apparatus as recited in claim 1 wherein the air-gun array further comprises air-guns in two parallel horizontal planes and wherein the at least one shock absorbing member further comprises shock absorbing members attached to respective pairs of adjacent air-guns in the two parallel horizontal planes.

- 4. The seismic signaling apparatus as recited in claim 1 wherein the air-gun array further comprises air-guns in two parallel vertical planes and air-guns in two parallel horizontal planes and wherein the at least one shock absorbing member further comprises shock absorbing members attached to respective pairs of adjacent air-guns in the two parallel vertical planes and respective pairs of adjacent air-guns in the two parallel horizontal planes.
- 5. The seismic signaling apparatus as recited in claim 1 wherein the at least one shock absorbing member further comprises a spring-loaded shock mount.
- 6. The seismic signaling apparatus as recited in claim 5 wherein the spring-loaded shock mount further comprises a spring coupled between a pair of latches.
- 7. The seismic signaling apparatus as recited in claim 5 wherein the spring-loaded shock mount further comprises a spring formed from a stainless steel.
- 8. The seismic signaling apparatus as recited in claim 5 wherein the spring-loaded shock mount further comprises a latch formed from a corrosion-resistant alloy.

- 9. The seismic signaling apparatus as recited in claim 1 wherein the support frame is configured for towing in the water behind a marine vessel.
- The seismic signaling apparatus as recited in claim
 wherein the support frame is configured for static deployment in the water.

- 11. A seismic signaling apparatus, comprising:
- a support frame;

an air-gun array operably mounted to the support frame such that a tapered, heavy centered, point source seismic signal is generated upon firing the air-gun array; and

- a global positioning system receiver coupled to the support frame, the global positioning system receiver operable to communicate with a global positioning system in order to determine the location of the seismic signaling apparatus.
- 12. The seismic signaling apparatus as recited in claim 11 wherein the air-gun array has a 2x4x2 configuration.
- 13. The seismic signaling apparatus as recited in claim 11 wherein the support frame is configured for towing in the water behind a marine vessel.
- 14. The seismic signaling apparatus as recited in claim 11 Wherein the support frame is configured for static deployment in the water.

15. A seismic signaling apparatus, comprising:
a support frame;

an air-gun array operably mounted to the support frame such that a tapered, heavy centered, point source seismic signal is generated upon firing the air-gun array, the air-gun array having air-guns in two parallel vertical planes and air-guns in two parallel horizontal planes;

substantially horizontal shock absorbing members attached to respective pairs of adjacent air-guns in the two parallel vertical planes that are operable to minimize horizontal air-gun movement generated upon firing the air-gun array; and

substantially vertical shock absorbing members attached to respective pairs of adjacent air-guns in the two parallel horizontal planes that are operable to minimize vertical air-qun movement generated upon firing the air-gun array.

- 16. The seismic signaling apparatus as recited in claim
 15 wherein the shock absorbing members further comprise
 spring-loaded shock mounts.
- 17. The seismic signaling apparatus as recited in claim 16 wherein the spring-loaded shock mounts further comprise springs coupled between a pair of latches.

- 18. The seismic signaling apparatus as recited in claim 16 wherein the spring-loaded shock mounts further comprise spring formed from a stainless steel.
- 19. The seismic signaling apparatus as recited in claim 16 wherein the spring-loaded shock mounts further comprise latches formed from a corrosion-resistant alloy.
- 20. The seismic signaling apparatus as recited in claim
 15 wherein the support frame is configured for towing in the
 water behind a marine vessel.
- 21. The seismic signaling apparatus as recited in claim
 15 wherein the support frame is configured for static
 deployment in the water.
- 22. The seismic signaling apparatus as recited in claim
 15 further comprising a global positioning system receiver
 coupled to the support frame that is operable to communicate
 with a global positioning system in order to determine the
 location of the seismic signaling apparatus.

23. A method for enhancing the signal repeatability of a seismic signaling apparatus comprising the steps of:

deploying the seismic signaling apparatus in the water, the seismic signaling apparatus including an air-gun array operably mounted to the support frame;

firing the air-guns in the air-gun array to producing a tapered, heavy centered, point source seismic signal; and

absorbing a force between at least two of the air-guns in the air-gun array generated upon firing the air-gun array with a shock absorbing member attached to the at least two of the air-guns.

- 24. The method as recited in claim 23 wherein the step of absorbing a force between at least two of the air-guns in the air-gun array further comprises minimizing vertical air-gun movement generated upon firing the air-gun array.
- 25. The method as recited in claim 23 wherein the step of absorbing a force between at least two of the air-guns in the air-gun array further comprises minimizing horizontal air-gun movement generated upon firing the air-gun array.

- 26. The method as recited in claim 23 wherein the step of absorbing a force between at least two of the air-guns in the air-gun array further comprises minimizing vertical air-gun movement generated upon firing the air-gun array and minimizing horizontal air-gun movement generated upon firing the air-gun array.
- 27. The method as recited in claim 23 wherein the step of absorbing a force between at least two of the air-guns in the air-gun array further comprises maintaining the air-guns in the air-gun array in a substantially fixed positioned during the firing step.
- 28. The method as recited in claim 23 wherein the step of absorbing a force between at least two of the air-guns in the air-gun array further comprises stabilizing the air-guns in the air-gun array during the firing step.
- 29. The method as recited in claim 23 wherein the step of absorbing a force between at least two of the air-guns in the air-gun array further comprises absorbing a force between pairs of adjacent air-guns in two parallel vertical planes of air-guns in the air-gun array.

- 30. The method as recited in claim 23 wherein the step of absorbing a force between at least two of the air-guns in the air-gun array further comprises absorbing a force between pairs of adjacent air-guns in two parallel horizontal planes of air-guns in the air-gun array.
- 31. The method as recited in claim 23 wherein the step of deploying the seismic signaling apparatus in the water further comprises towing the seismic signaling apparatus behind a marine vessel.
- 32. The method as recited in claim 23 wherein the step of deploying the seismic signaling apparatus in the water further comprises statically deploying the seismic signaling apparatus in the water.
- 33. The method as recited in claim 23 further comprising the step of determining the location of the seismic signaling apparatus with a global positioning receiver coupled to the seismic signaling apparatus.

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